

numbers,” meaning that they can be applied only in the largest communities, limiting their use in local areas and for projecting trends among population sub-groups. The use of the back calculation method is complicated by changes in AIDS surveillance criteria. For all of these reasons, such projections require sophisticated statistical expertise. More crude estimates for local areas can be made, however, by extrapolating from national estimates. Thus, for example, if a given area accounts for X percent of national AIDS cases, that percent can be applied to national AIDS projections and to the national estimate of infected persons. This technique will underestimate future AIDS trends and the number of infected persons in areas where AIDS cases are increasing more rapidly than national trends, and vice versa.

**4.1.1.2 HIV-Related Mortality Data.** Mortality data are useful in communicating the impact of HIV infection. Concepts such as “leading causes of death” and the percent of all deaths attributed to HIV infection are readily understood by general audiences. Mortality data are independent of definitions used for AIDS reporting because they represent deaths attributed to *HIV infection*.

HIV-related mortality data should be examined for specific age groups, since the impact of HIV is highly age-specific. Often, the age group of 25-44 years is used, since this corresponds with standard categories used by National Center for Health Services (NCHS) in reporting mortality and with the age of most persons dying from HIV infection. For example, HIV infection is now the leading cause of death among men 25-44 years of age and the fourth leading cause among women 25-44 years of age, accounting for 20% and 7%, respectively, of deaths among men and women in this age group in the United States.

Trends in HIV-related mortality, particularly when shown graphically, provide an especially potent indication of the impact of HIV, when compared with other leading causes of death, which have been relatively stable. While vital statistics data are likely to be important in drawing attention to the impact of HIV in a community, their usefulness for community planning is limited, since they do not provide information on modes of HIV transmission. Also, mortality data underestimate the impact of HIV in communities or groups more recently affected by HIV.

**4.1.1.3 HIV Seroprevalence Data.** HIV seroprevalence surveys measure the level of HIV infection among selected populations that have been targeted for surveys. These range from individuals who as a group are not at particularly high risk for HIV infection (e.g., blood donors, childbearing women, military recruits) to persons at a relatively high level of risk for HIV infection (e.g., persons attending STD or drug treatment centers).

Virtually all states should have access to data on HIV prevalence among childbearing women, military recruits, Job Corps applicants, and blood donors. In addition, a number of seroprevalence surveys have been conducted in a variety of clinic-based settings in different cities. Among these surveys, the one in childbearing woman is the only population-based survey, meaning that it represents virtually all women delivering live-born children within a defined geographic area. All the other surveys are based on “sentinel” populations, meaning that the observed seroprevalence levels represent HIV infections in selected groups, but they may not represent the seroprevalence in all comparable individuals. For example, the HIV seroprevalence in persons attending two STD clinics within a city may or may not be truly representative of all persons with STDs in that city. Likewise, illicit drug users in selected drug treatment centers may or may not be representative of all drug users, including those in and out of treatment.

The greatest power of these data is in documenting the extent and potential impact of HIV that is not yet manifest as severe disease. As such, these data have been extremely useful in demonstrating to communities that HIV is indeed a larger problem than many had previously assumed.

**4.1.1.4 Behavioral Risk Factor Surveillance System (BRFSS) and the Youth Risk Behavior Surveillance System (YRBSS).** The BRFSS is a telephone-based survey conducted by nearly all states and provides information on a variety of health risk behaviors and knowledge, ranging from cigarette smoking to alcohol and drug use to seat belt use to HIV-related knowledge. Questions about HIV focus on the respondent's understanding of how HIV is transmitted, how transmission can be prevented, and on self-perceived risk of infection. The YRBSS includes national, state, and local school-based surveys of adolescents, and similarly addresses a range of health-related issues, including drug use and sexual behavior. These surveys are aimed at the general population of residents in a state (BRFSS) or the general population of adolescents in school (YRBSS) and provide general, rather than highly specific, information about HIV-related knowledge (BRFSS) and risk behaviors (YRBSS). Thus, they are likely to be most useful in planning community-wide education programs and less useful in targeting specific high-risk groups.